Bridge Design

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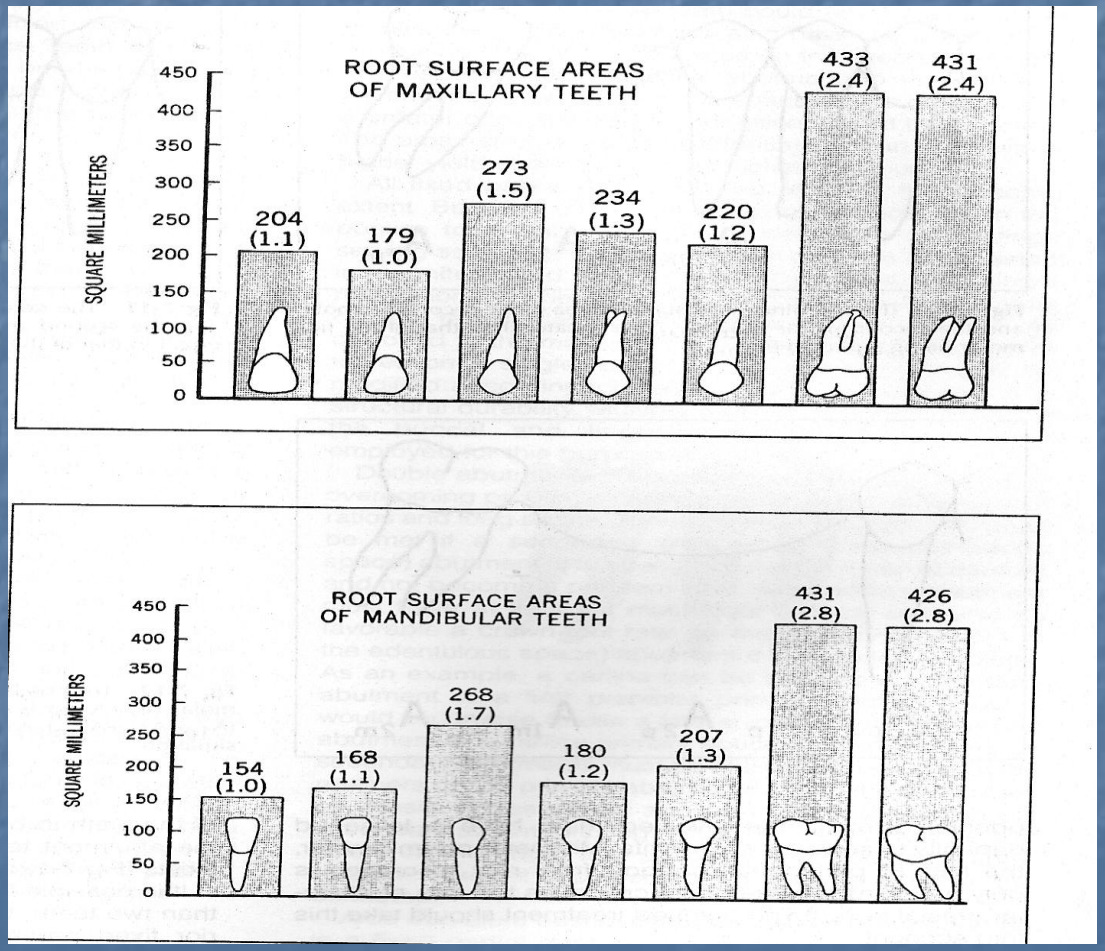
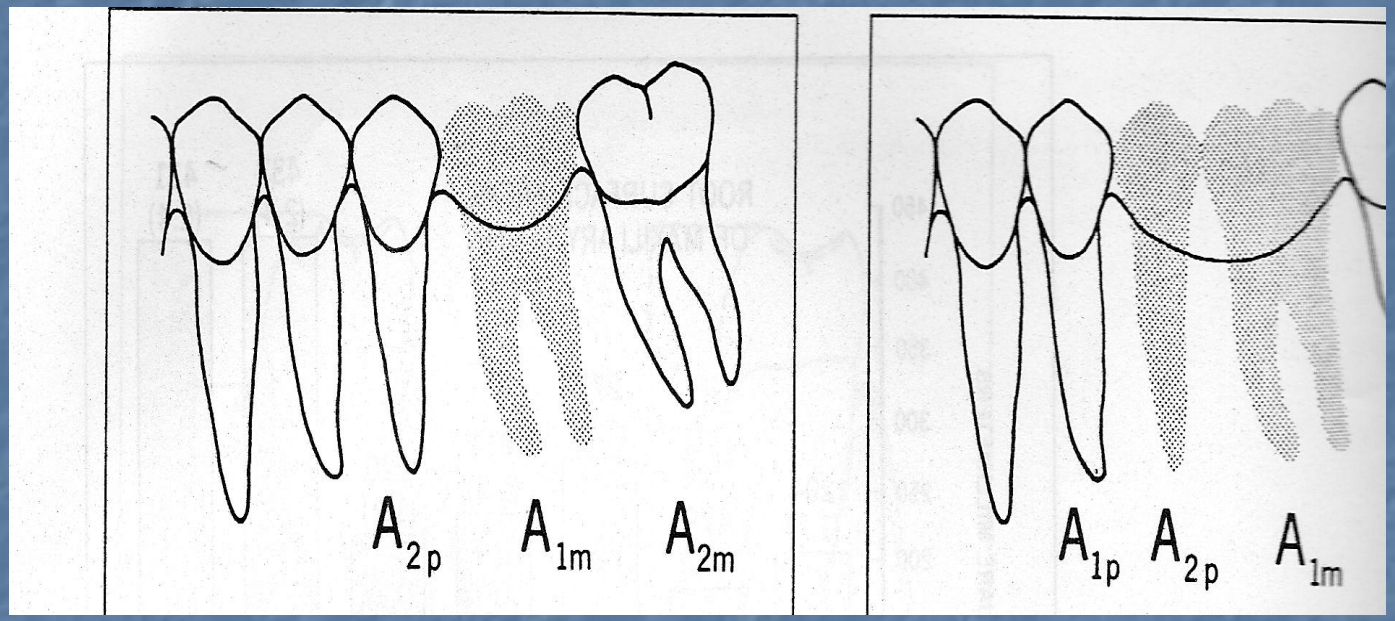
Strength of abutments



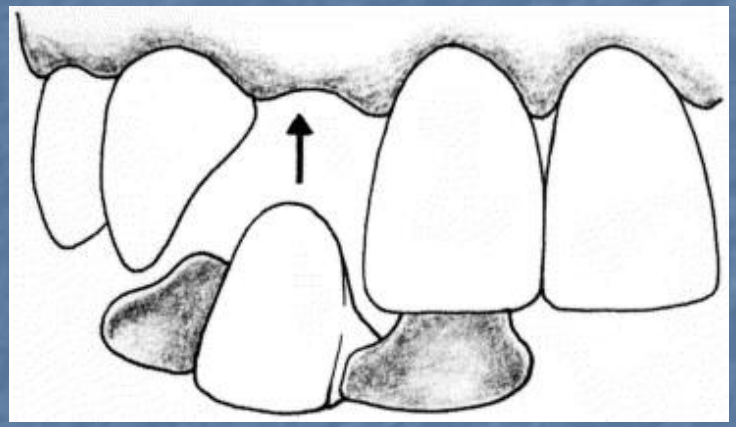
Factors Affecting Bridge Design

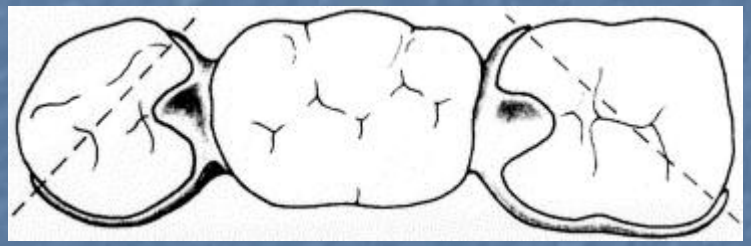
- Health of abutments
- Abutment position
- Presence of caries, existing restorations, discolourations, fractures.
- Dental knowledge
- Costs
- Type of occlusion, opposing arch

Ante's Law

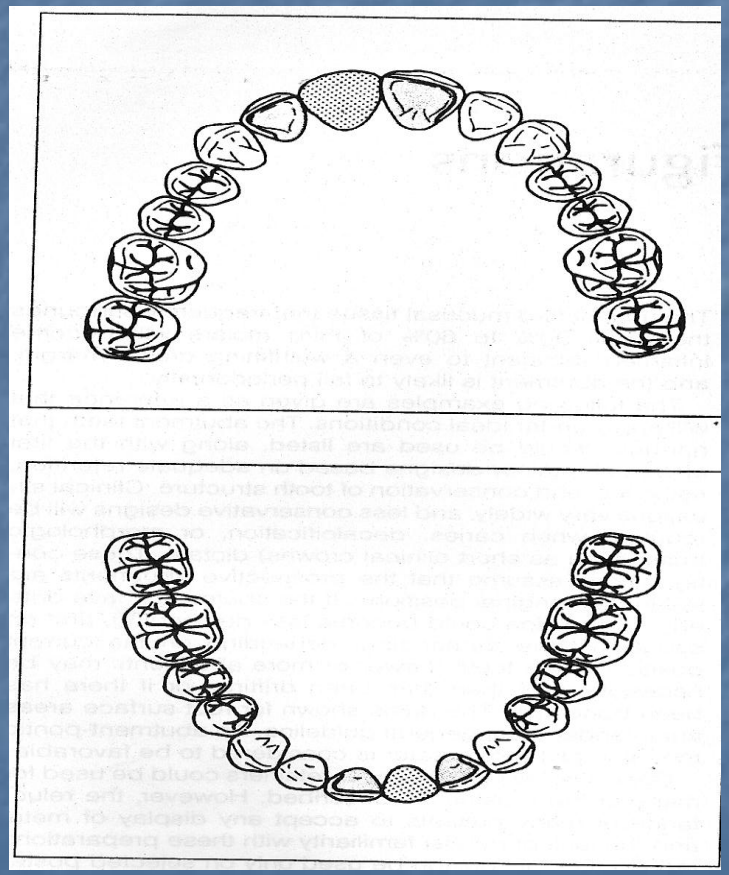


Resin Bonded Restoration



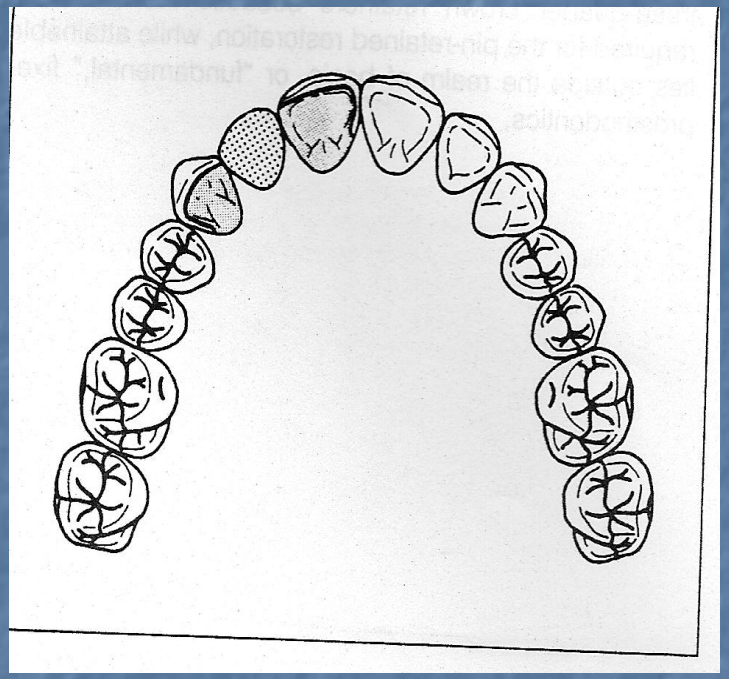


Missing centrals



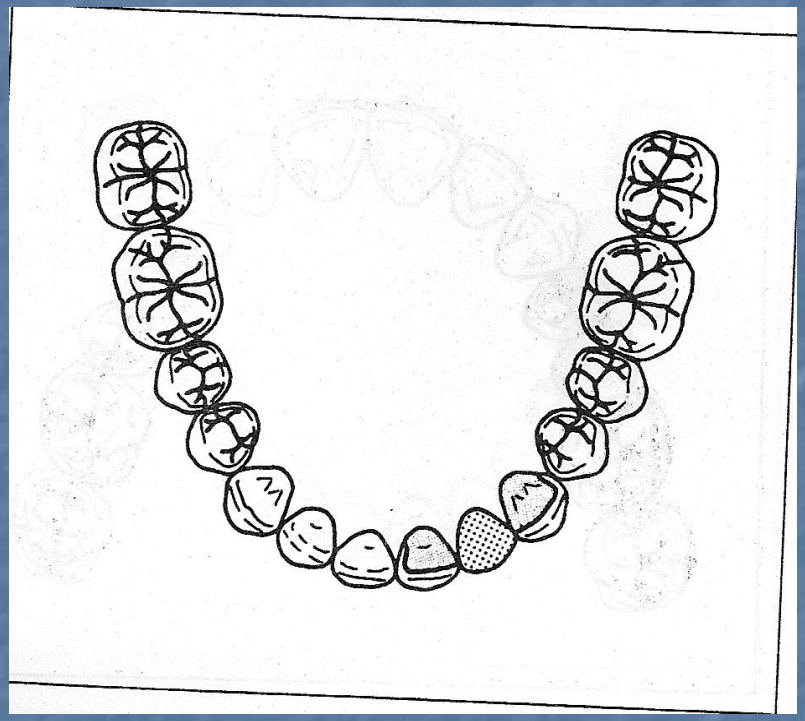
- Resin bonded bridge
- Implant
- Fx-Fx bridge
- Lower central can be exposed during reduction

Missing upper lateral



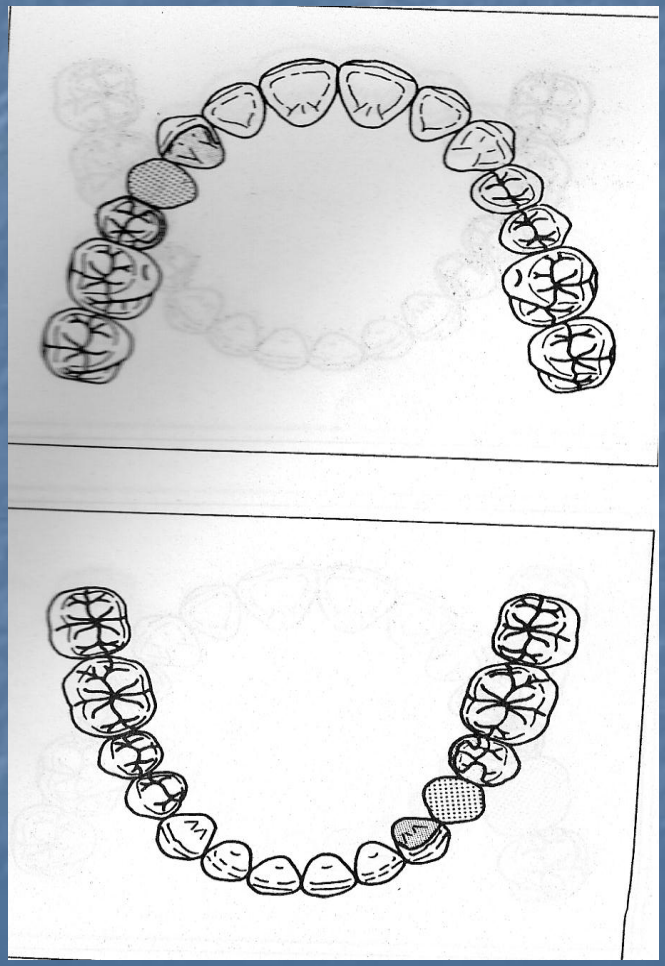
- RBR
- Fx-Free bridge (pontic free of contact)
- Fx-Fr (with 3&4)
- Fx-Fx
- Implant

Missing lower lateral



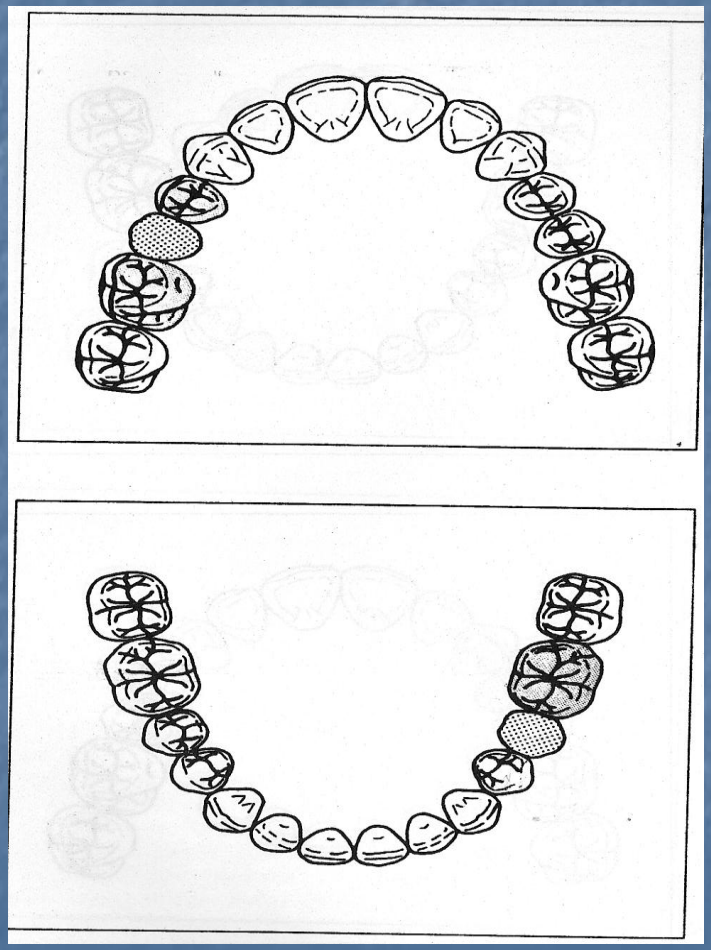
- RBR
- Fx-Fx bridge (1 & 3)
- Add (1,1 & 3)
- Cantilever contraindicated

Missing first premolar



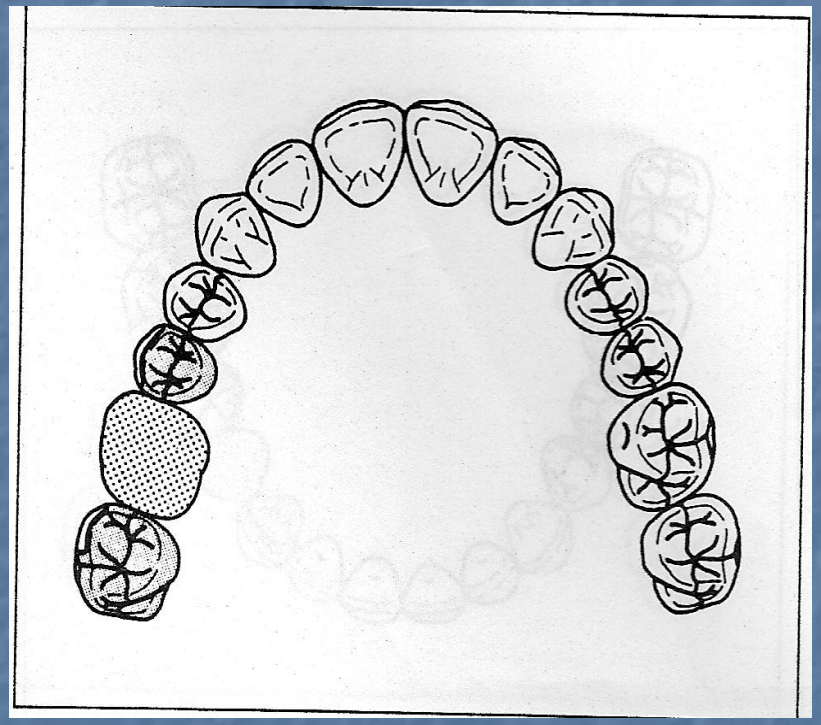
- RBR
- Implant (note sinus position)
- Fx-Fx (3 &5)
- Cantilever (5 & 6) with canine guided occlusion

Missing second premolar



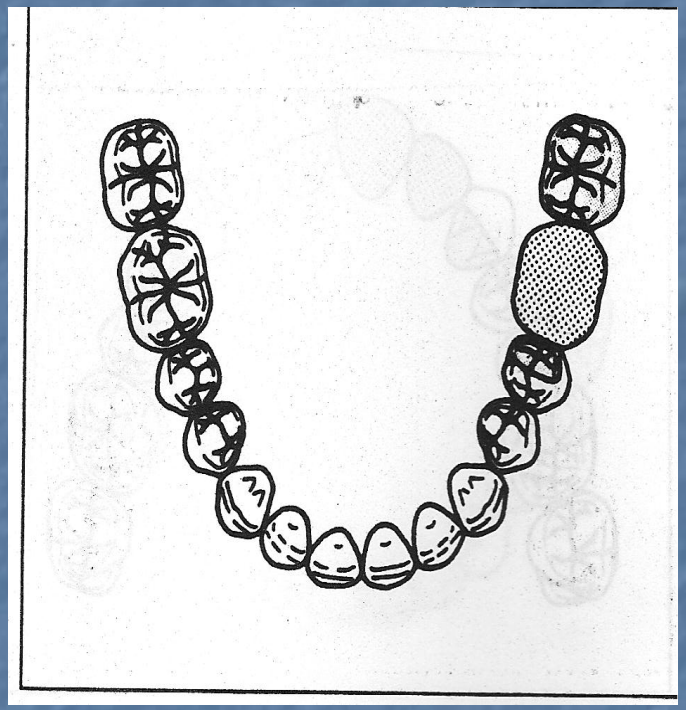
- Fx-Fx (4 & 6) can use ¾ retainers, full coverage.
- RBR when teeth intact and good occlusion

Missing upper first molar



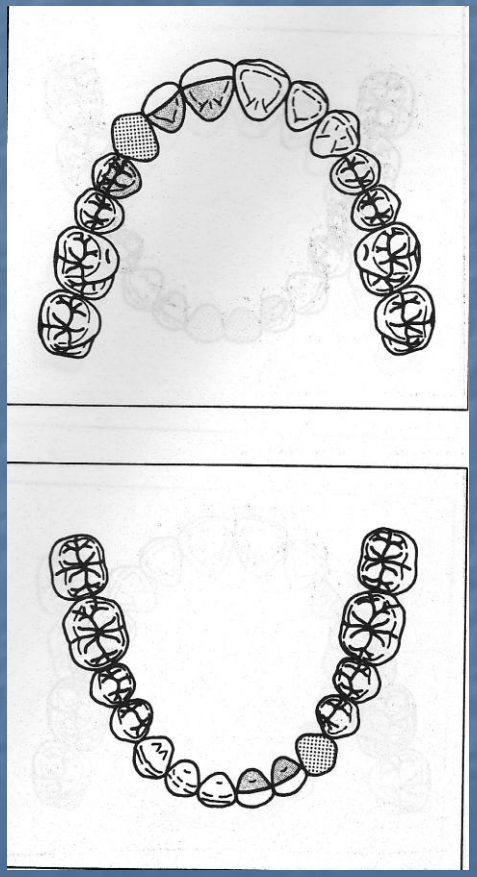
- Fx-Fx bridge (5 & 7)
- Partial or full coverage retainers

Missing lower first molar



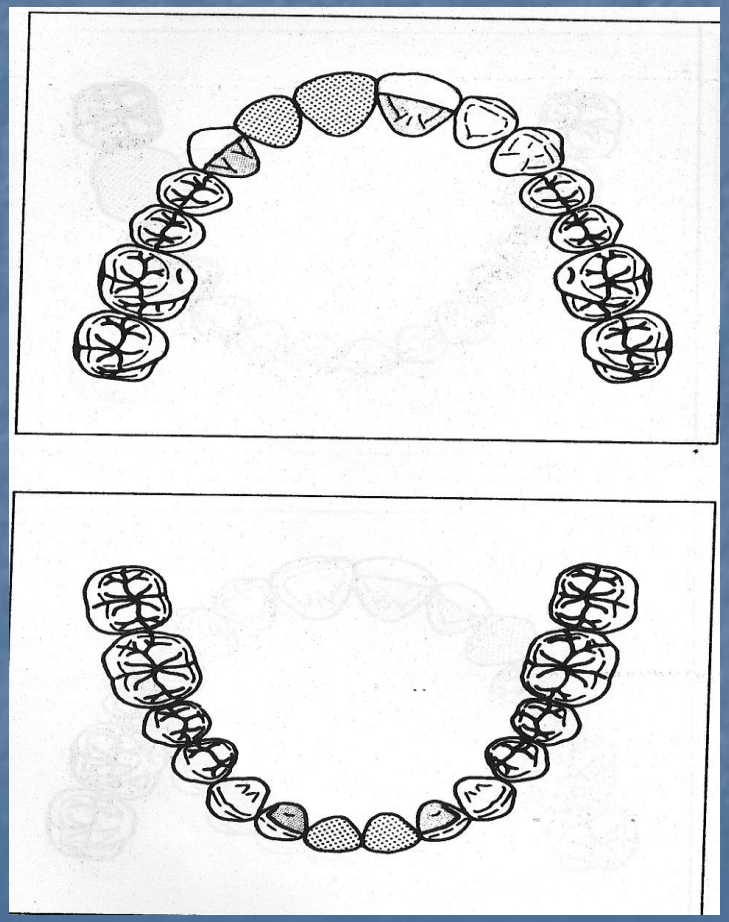
- Fx-Fx (5 & 7)
- Full coverage advisable, ¾ possible if 5 is large
- Tilted 7 has several options.

Missing Canine (complex)



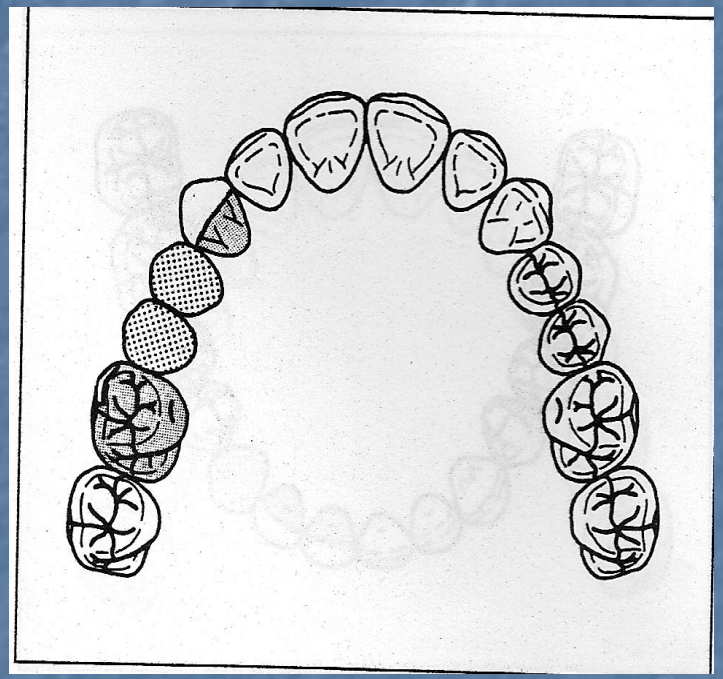
- Fx-Fx (1,2 &4) restore with group function
- Fx-Fx (2 &4,5) not advisable due to weak lateral
- Implant possible
- If lower 2 is weak, extract and use (1,1,4)

Missing two incisors



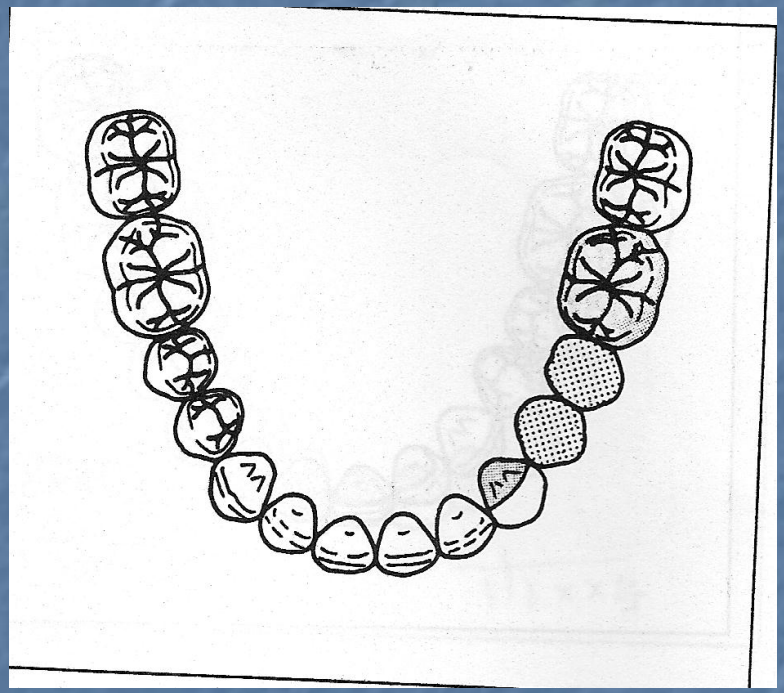
- Fx-Fx (1 &3)
- Full coverage best, partial coverage possible if dentist skill is high
- In lower: if 2 weak add 3

Missing upper premolars



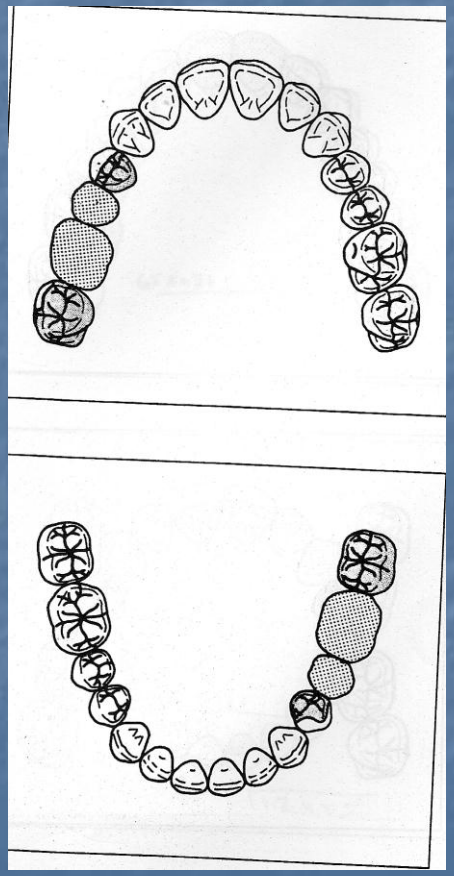
- Fx-Fx (3 & 6)
- Full coverage better than partial

Missing lower premolars



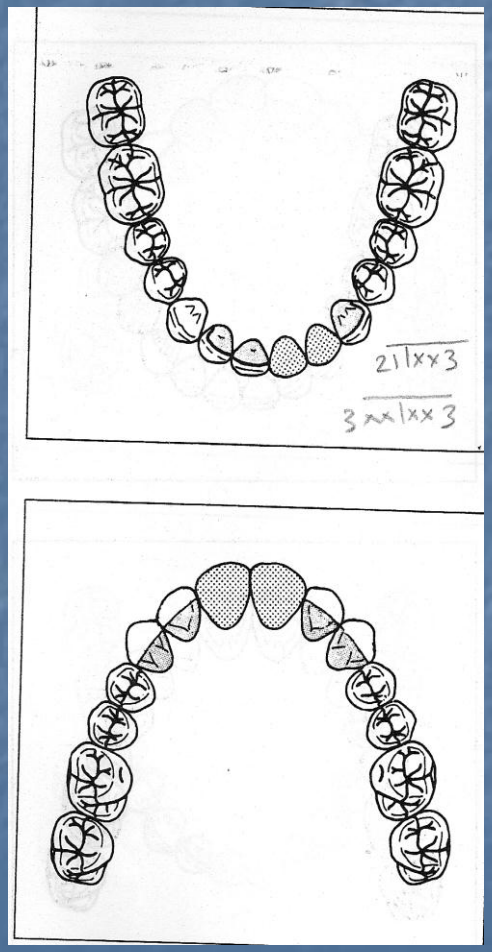
- Fx-Fx (3 & 6)
- Tilting of 6 can modify the design

Missing molar and premolar



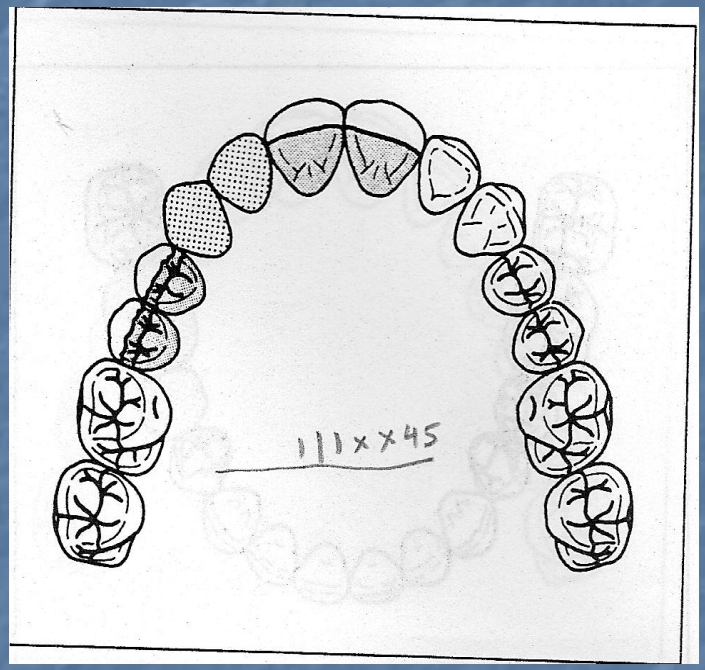
- Fx-fx (4 & 7)
- Full coverage retainers
- In lower: 4 weak or short add 3

Complex Bridges



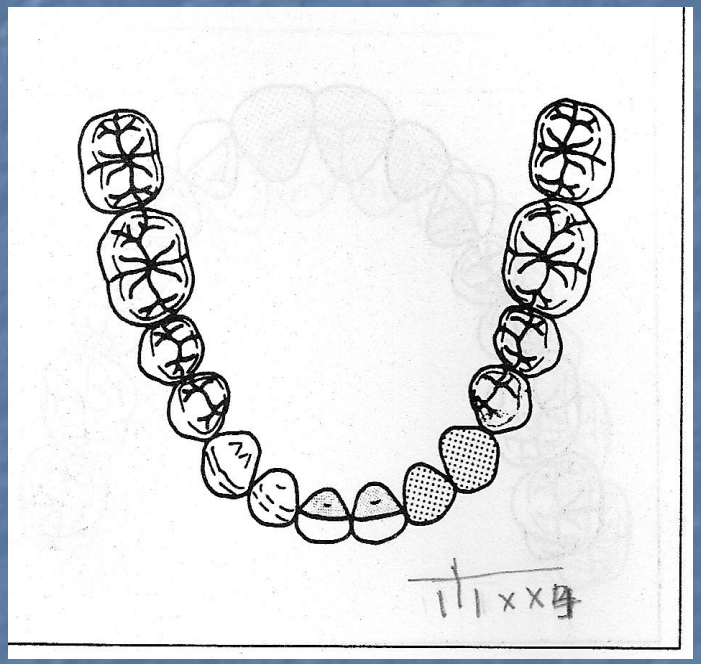
- Lower: (2,1 & 3)
- If centrals are questionable, extract and do 3 to 3
- Upper: (3,2,2,3)
- If laterals are weak, extract 3 to 3
- Very rarely use 2s only

Missing canine and lateral

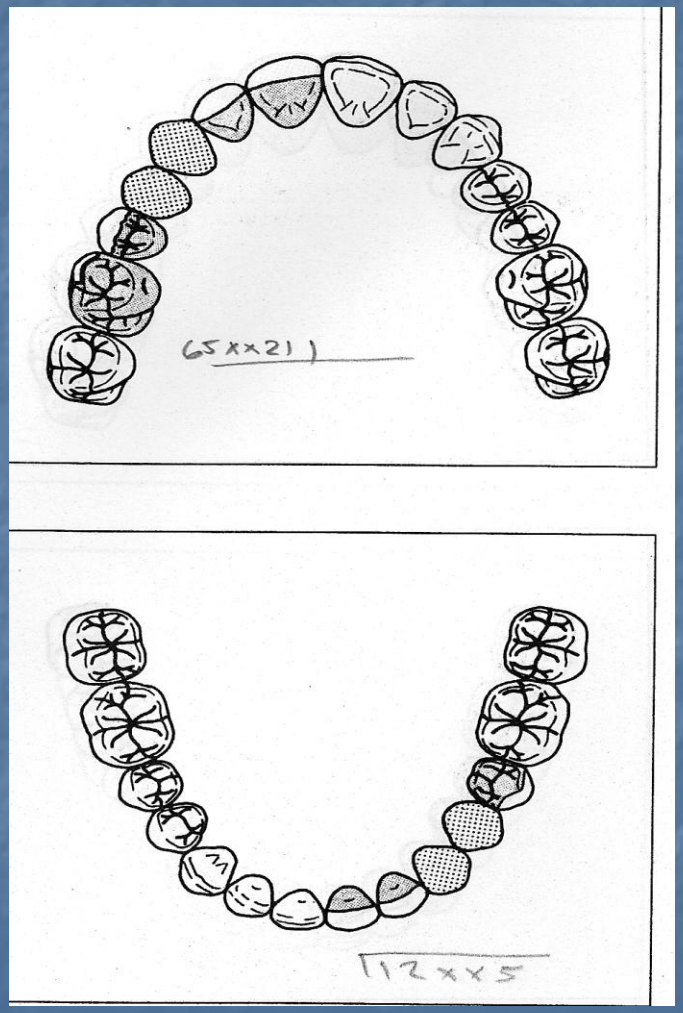


- Fx-Fx bridge (1,1,4,5)
- Group function

Complex bridge 2 missing teeth

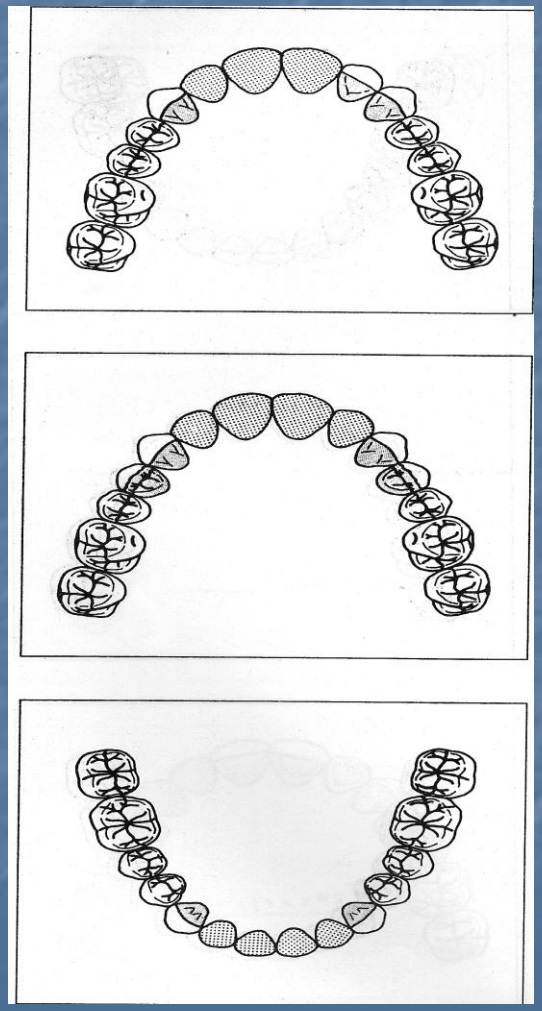


- Fx-Fx (1,1 &4)
- Due to short span we don’t need to use the premolar as an added abutment

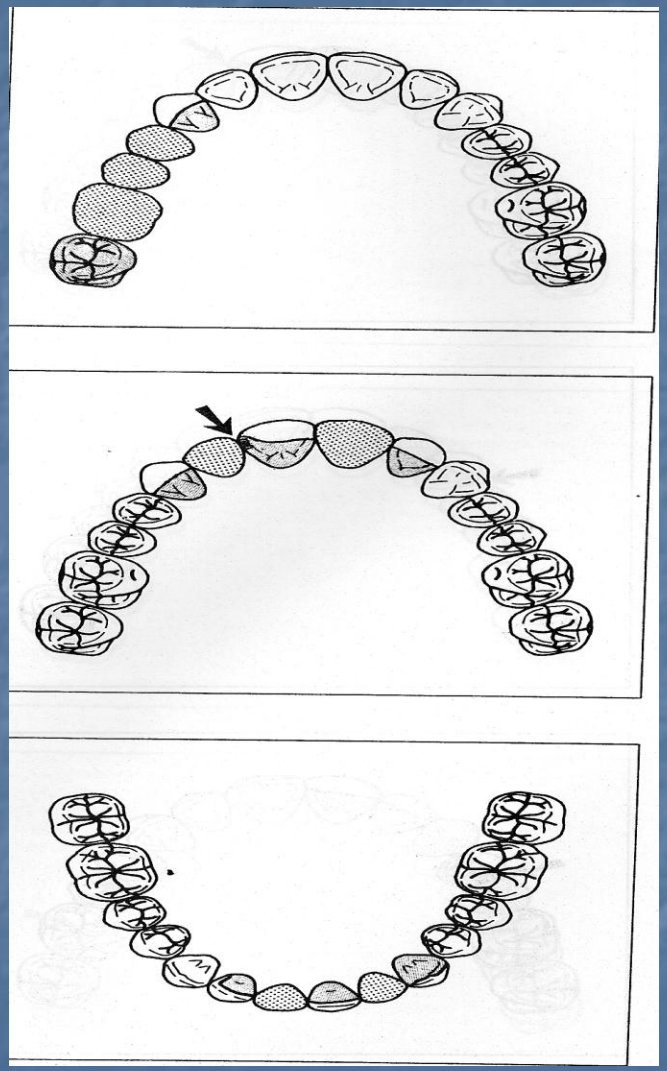


- Fx-Fx (1,2,5,6) in case of upper
- (1,2,5) only in case of lower
- Group function occlusion
- Missing canine plus two teeth = RPD

Missing more than 2 teeth



- If lateral questionable, extract
- Measure the dental arch curve. If slight the premolars can be omitted
- In lower just use the canines



- Pier abutments use non-rigid connector with the placed in the distal surface of the pier abutment
- In lower a rigid connector is used because of the short span